

## ABSTRACT

A video processing circuit includes a processor that receives an encoded image having first and second regions, decodes the first region of the image, modifies the decoded first region, and re-encodes the modified first region. Such a circuit allows one to modify a region of an image by decoding and re-encoding only that region instead of the entire image. For example, if one wishes to overlay an EPG on a bottom portion of a video frame, then the circuit can decode only the EPG and the bottom portion of the frame, overlay the decoded EPG on the bottom frame portion, and re-encode the overlaid bottom frame portion. Therefore, this technique often reduces the processing time, and thus the cost and complexity of the processing circuit, as compared to a circuit that decodes and re-encode the entire frame during an image overlay process.